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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,263	03/04/2002	Jari Ruohonen	460-010860-US(PAR)	6951
2512	7590	06/27/2005	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			TRAN, KHANH C	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/091,263	Applicant(s) RUOHONEN, JARI	
	Examiner Khanh Tran	Art Unit 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/04/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/04/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1 and 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 24 provides for the use of "*a reference level for automatic gain control of a radio frequency signal to be received*", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1 and 24 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

2. Claims 2-23 and 25-33 are also rejected because of depending on claims 1 and 24.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 5-6, 8-9, 12-13, 20-22, 24-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Pecen U.S. Patent 6,603,825 B1.

Regarding claim 1, Pecen is directed to a receiver automatic gain control including a variable gain receiver having a control input and responsive to a gain control signal for adjusting the output level of the receiver. In column 8, lines 25-50, Pecen teaches a method for automatic gain control comprising:

Measuring a traffic channel (TCH) signal level and broadcast control channel (BCCH) carrier signal level to determine a BCCH carrier to interference ratio and a TCH carrier to interference ratio;

Adjusting a receiver gain of the receiver that receives information on a TCH, in response to the BCCH carrier signal level, and the BCCH carrier to interference ratio reaching a first predetermined value and said TCH carrier to interference ratio reaching a second determined value. The second determined value corresponds to the claimed predetermined transmission power. The step, as taught by Pecen, of “adjusting a receiver gain of the receiver that receives

information on a TCH, in response to the BCCH carrier signal level” corresponds to the claimed “using a predetermined way of controlling the transmission power”.

In column 6, lines 60-67, Pecen further teaches the radiotelephones 104 404 405 as shown in figure 4 takes signal measurements repeatedly and communicate this information to a base station. In light of that, the aforementioned teachings correspond to the claimed step “reference level is continuously determined on the basis of correctly received”.

The step of “adjusting a receiver gain of the receiver that receives information on a TCH, in response to the BCCH carrier signal level” corresponds to the claimed step of “the reference level is corrected on the basis of the signal strength measured during reception of each valid radio block”. The TCH corresponds to the claimed “logical packet data traffic channel”.

Regarding claim 2, as recited in claim 1, the radiotelephones 104 404 405 as shown in figure 4 takes signal measurements repeatedly and communicate this information to a base station. In light of that, taking signal measurements repeatedly corresponds to calculating the running average with respect to time.

Regarding claim 5, in column 6, lines 24-37, the BCCH carrier is transmitted at a constant amplitude. In column 8, line 40-50, Pecen further teaches adjusting the receiver gain based on the measured BCCH carrier signal level, BCCH carrier to interference ratio and the determined mathematical and logical relationship in the

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absence of a signal transmitted on the TCH, as a predictor of the receiver gain in anticipation of next transmitted signal on the TCH.

Regarding claim 6, claim 6 is rejected on the same ground as for claim 2 because of similar scope.

Regarding claim 8, Pecan teaches broadcast channel is the BCCH channel in the GPRS data transmission as shown in figure 6.

Regarding claim 9, Pecan teaches measuring BCCH carrier signal level.

Regarding claim 12, as recited in claim 1, Pecan teaches adjusting a receiver gain of the receiver that receives information on a TCH, in response to the BCCH carrier signal level, and the BCCH carrier to interference ratio reaching a first predetermined value and said TCH carrier to interference ratio reaching a second determined value.

Regarding claim 13, referring to figure 7, in column 5 lines 45 via column 6 line 10, the frame allocation to the mobiles 104 404 405. The frame includes data addressed to 104 404 405. In view of that, frame contains address information. Base stations reduce the down link power level to mobiles based upon how the mobile stations are receiving the base station signals as determined from the mobile station signal quality measurement.

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Regarding claim 20, Pecan teachings apply to GPRS. Mobile station receives signal from base station in a packet switched communication network.

Regarding claim 21, as recited in claim 1, Pecan teaches measuring a traffic channel (TCH) signal level and broadcast control channel (BCCH) carrier signal level to determine a BCCH carrier to interference ratio and a TCH carrier to interference ratio and adjusting a receiver gain of the receiver that receives information on a TCH, in response to the BCCH carrier signal level, and the BCCH carrier to interference ratio reaching a first predetermined value and said TCH carrier to interference ratio reaching a second determined value.

Regarding claim 22, as recited in claim 1, the traffic channel is TCH of the GPRS network.

Regarding claim 24, claim 24 is rejected on the same ground as for claim 1 because of similar scope.

Regarding claim 25, claim 25 is rejected on the same ground as for claim 5 because of similar scope.

Regarding claims 26 and 28, Pecan teaches measuring a traffic channel (TCH) signal level and broadcast control channel (BCCH) carrier signal level to determine a

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BCCH carrier to interference ratio and a TCH carrier to interference ratio; adjusting a receiver gain of the receiver that receives information on a TCH, in response to the BCCH carrier signal level, and the BCCH carrier to interference ratio reaching a first predetermined value and said TCH carrier to interference ratio reaching a second determined value at predetermined intervals.

Regarding claim 27, Pecen teachings apply to GPRS network.

Allowable Subject Matter

4. Claims 3-4, 7, 10-11, 14-19, 23, 29-33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rich et al. U.S. Patent 5,758,271 discloses "Apparatus And Method For Optimizing The Quality Of Received Signal In A Radio Receiver".

Honkasalo et al. U.S. Patent 5,331,638 discloses "Gain Control In A TDMA Radio-Telephone System".

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KCT

Khanh Tran

06/24/2005

Examiner KHANH TRAN